

**What is claimed is:**

1. An auto-collimator applying light from a light source onto a measurement-subject article, then concentrating the  
5 return light reflected back from the measurement-subject article by a convex lens, then converting the return light to parallel light by a concave lens, and then projecting the return light onto a first screen for detection of inclination of the normal of the measurement-subject article, said auto-  
10 collimator comprising:

an optical splitting element provided between the convex lens and the concave lens for splitting off a portion of the return light travelling back from the measurement-subject article; and

15 a second screen for projecting the split-off light split off by the optical splitting element.

2. An auto-collimator according to claim 1, wherein the optical splitting element is a beam splitter.

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3. An auto-collimator according to claim 1, wherein the optical splitting element is positioned at an approximately equal distance from the concave lens and from the second screen.

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4. An auto-collimator according to claim 1, further comprising a plurality of reflection mirrors for reflecting

in sequence the return light travelling back from the measurement-subject article and passing through the concave lens, wherein the return light travelling back from the measurement-subject article is reflected by the plurality of  
5 reflection mirrors and then enters the first screen.

5. An auto-collimator according to claim 4, further comprising a reflection mirror for reflecting the split-off light split off from the return light travelling back from  
10 the measurement-subject article by the optical splitting element, wherein the split-off light split off from the return light is reflected by the reflection mirror and then enters the second screen.

15 6. An auto-collimator according to claim 1, wherein the optical splitting element is located in a position to allow a space between the optical splitting element and the concave lens to be identical in length with the sum of a space between the optical splitting element and a reflection mirror  
20 provided for reflecting the split-off light travelling from the optical splitting element and a space between the reflection mirror for reflecting the split-off light and the second screen.

25 7. An auto-collimator according to claim 1, further comprising:

two reflection mirrors for reflecting in sequence the

return light travelling back from the measurement-subject article and passing through the concave lens for projection onto the first screen; and

5 a single reflection mirror for reflecting the split-off light split off from the return light travelling back from the measurement-subject article by the optical splitting element, for projection onto the second screen.